



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6193/1
File Number: DEC2011/006890-1
Duration of Permit: 11 October 2014 to 11 October 2024

PERMIT HOLDER

Shire of Ravensthorpe

LAND ON WHICH CLEARING IS TO BE DONE

Melaleuca Road reserve (PIN 11642132 and PIN 11642722), Munglinup
Mills Road reserve (PIN 11520275), Munglinup

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 14.89 hectares of native vegetation within the area shaded yellow on attached Plan 6193/1.

CONDITIONS

1. Period in which clearing is authorised

- (a) The Permit Holder shall not clear any native vegetation after 11 October 2019.
- (b) The Permit Holder shall not clear more than 3 hectares of native vegetation within a 1 year period.

2. Dieback and weed control

- (a) When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared;
 - (iii) restrict the movement of machines and other vehicles to the limits of the areas to be cleared;
 - (iv) only move soils in *dry conditions*; and
 - (v) where *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is to be removed from the area to be cleared, ensure it is transferred to areas of comparable *soil disease status*.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

3. Retain vegetative material and topsoil, revegetation and rehabilitation

The Permit Holder shall:

- (a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that has already been cleared.
- (b) at an *optimal time* following clearing authorised under this Permit *revegetate* and *rehabilitate* the area(s) that are no longer required for the purpose for which they were cleared under this Permit by:
 - (i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land; and
 - (ii) ripping the ground on the contour to remove soil compaction; and
 - (iii) ripping the pit floor and contour batters within the extraction site; and
 - (iv) laying the vegetative material and topsoil retained under condition 3(a) on the cleared area(s).

- (c) within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 3(b) of this Permit:
 - (i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
 - (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 3(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.
- (d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 3(c)(ii) of this permit, the Permit Holder shall repeat condition 3(c)(i) and 3(c)(ii) within 18 months of undertaking the additional *planting* or *direct seeding* of native vegetation.
- (e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 3(c)(i) and (ii) of this permit, that determination shall be submitted for the CEO's consideration. If the CEO does not agree with the determination made under condition 3(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 3(c)(ii).

4. Records to be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 3 of this Permit:
 - (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
 - (v) a copy of the environmental specialist's report.

5. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 4 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 11 July 2024, the Permit Holder must provide to the CEO a written report of records required under condition 4 of this Permit where these records have not already been provided under condition 5 (a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

dieback means the effect of *Phytophthora* species on native vegetation;

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

environmental specialist: means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the CEO as a suitable environmental specialist.

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 10 kilometres and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion of the area cleared.

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

optimal time means the period from April to May for undertaking *planting*;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing *mulch*;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.

soil disease status means soil types either infested, not infested, uninterpretable or not interpreted with a pathogen.

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



M Warnock
SENIOR MANAGER
CLEARING REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

11 September 2014

Plan 6193/1



LEGEND

- Road Centrelines
- Local Government Authorities
- Cadastre for labelling
- Clearing Instruments
- Areas Approved to Clear

Oldfield 50cm Orthomosaic - Landgate 2007

Scale 1:40000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

M Warnock Date 11/9/14
M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

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Department of Environment Regulation
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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 6193/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Ravensthorpe

1.3. Property details

Property: ROAD RESERVE (MUNGLINUP 6450)
Local Government Area: Shire of Ravensthorpe
Colloquial name: Melaleuca Road and Mills Road

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
14.89		Mechanical Removal	Extractive Industry

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 11 September 2014

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Mapped Beard vegetation association 47 is described as shrublands; tallerack mallee-heath (Shepherd et al, 2001).	The clearing of 14.89 hectares of native vegetation is for the purpose of gravel extraction.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994) To Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994).	The vegetation condition was determined through aerial imagery.

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments **Proposal is not likely to be at variance to this Principle**
The application is to clear 14.89 hectares of native vegetation within Melaleuca Road reserve and Mills Road reserve, Munglinup, for the purpose of gravel extraction.

The application area falls within Beard vegetation association 47 which retains approximately 35 per cent of native vegetation within the Esperance Plains IBRA bioregion (Government of Western Australia, 2013). The local area (10 kilometre radius) retains 20 per cent native vegetation. Given this, the application falls within a highly cleared landscape.

Five priority flora species have been recorded within the local area (10 kilometre radius). The closest being a priority three flora species mapped approximately 650 metres west of the application area. Suitable habitat may be located within the application area, however, priority three species are generally known from collections from several different localities not under imminent threat (DEC, 2012). Given the linear nature of the application area, it is not likely the proposed clearing will impact the conservation status of this species.

The area under application may provide suitable habitat and act as a fauna corridor for the Western Brush Wallaby (*Macropus irma*) listed as priority four under the Wildlife Conservation Act 1950, as well as other local species native to the area. Given the highly cleared landscape, the proposed clearing is likely to contribute to the degradation of this fauna corridor. However, the impacts of the proposed clearing are not likely to be significant given the applicant has agreed to progressively clear and rehabilitate, and retain a 10 metre vegetative buffer along the fence line.

One threatened ecological community (TEC) described as 'Proteaceae Dominated Kwongkan Shrubland', is known to occur within the local area (10 kilometre radius) (Department of the Environment, 2014). Given the long linear shape of the areas under application and the incremental staged clearing, the native vegetation proposed to be cleared is not likely to be necessary for the maintenance of this TEC.

Given the above, the proposed clearing is not likely to hold a high level of biological diversity and is not likely to be at variance to this Principle.

Methodology

References:

- Government of Western Australia (2013)
- DEC (2012)
- Department of the Environment (2014)

GIS Databases:

- SAC Bio Datasets (Accessed September 2014)
- NLWRA, Vegetation Remaining
- Hydrography , linear
- Hydrography, hierachy
- DEC Tenure

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Comments

Proposal may be at variance to this Principle

One fauna species, the Western Brush Wallaby (*Macropus irma*) listed as priority four conservation status under the Wildlife Conservation Act 1950 has been recorded within the local area (10 kilometre radius). The vegetation under application is described as; Shrublands; tallerack mallee-heath (Shepherd et al, 2001). The preferred habitat for this species consists of open, seasonally wet flats with low grasses and open scrubby thickets, as well as areas of mallee and heath-land (DEC, 2012a). Therefore, the vegetation under application may provide suitable habitat for this species. In addition, the application area may provide suitable habitat for other local native fauna species not listed under the Wildlife Conservation Act 1950.

The application area falls within a highly cleared landscape with 20 per cent of native vegetation remaining in the local area (10 kilometre radius). The vegetation under application is likely to act as a fauna corridor that facilitates the movement of fauna within, and across the landscape with the road reserves proposed for clearing providing connection between existing remnant vegetation. Given this, the proposed clearing is likely to contribute to the degradation of this existing fauna corridor. However, in order to mitigate the impacts of the proposed clearing on this fauna corridor, the applicant has agreed to undertake the clearing in staged increments and progressively revegetate as the clearing is completed. In addition, the applicant has proposed to retain a 10 metre vegetative buffer along the fence line which will also reduce the severing of this fauna corridor. Clearing management practices allowing the applicant to clear no more than three hectares of vegetation every 12 months will assist in maintaining a usable linkage for fauna.

Given the area under application is likely to act as a fauna corridor within an extensively cleared landscape, the proposed clearing may be at variance to this principle.

Methodology

References:

- DEC (2012a)

GIS Databases:

- NLWRA, Current Extent of Native Vegetation
- SAC Bio Datasets (Accessed September 2014)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Comments

Proposal is not likely to be at variance to this Principle

The closest record of rare flora is located approximately 6.5 kilometres north-west of the proposed clearing area. This species always grows in association with broom bush (*Melaleuca uncinata*) and prefers sandy soils (Western Australian Herbarium (1998-). It is unlikely that rare flora will be present given the different soil type and the unlikely presence of broom bush within the area under application.

The proposed clearing is not likely to be at variance to this principle.

Methodology References:
 - Western Australian Herbarium (1998-)

GIS Databases:
 - SAC Bio Datasets (Accessed September 2014)

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Comments **Proposal is not likely to be at variance to this Principle**

One threatened ecological community (TEC), 'Proteaceae Dominated Kwongan Shrubland', is known to occur within local area (10 kilometre radius). This community is dominated by flowering shrub species from the Proteaceae family (e.g Banksias, Grevilleas and Hakeas) (Department of the Environment 2014). This TEC has a broad distribution throughout the south coast region with large areas located within conservation estate (Department of the Environment 2014).

The vegetation type mapped within the application area is not considered analogous to this threatened ecological community and therefore it is not likely that the proposed clearing comprises the whole, or is necessary for the maintenance of this TEC.

Given the above the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Databases:
 - SAC Bio Datasets (Accessed September 2014)

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments **Proposal may be at variance to this Principle**

The area under application is located within the Esperance Plains Interim Biogeographic Regionalisation of Australia (IBRA) bioregion. This IBRA bioregion has approximately 52 per cent of its pre-European vegetation extent remaining (Government of Western Australia 2013).

The vegetation under application comprises of Beard vegetation association 47 of which there is approximately 35 per cent of its pre-European extent remaining within the Esperance Plains Bioregion (Government of Western Australia, 2013).

The area under application is located within the Shire of Ravensthorpe, within which there is approximately 61 per cent of pre-European extent remaining (Government of Western Australia 2013).

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The local area retains approximately 20 per cent of native vegetation within a 10 kilometre radius. Therefore, the application falls within a highly cleared landscape. However, given the applicant proposes to carry out the proposed clearing in staged increments and undertake progressive revegetation post-clearing, minimal impacts to the vegetation association are expected given the small size of the staged clearing (2-3 hectares per increment) and the linear nature of the proposed clearing.

Given the above, the application may be at variance to this principle.

	Pre-European (ha)	Current Extent Remaining (ha)	Remaining (%)	Extent in DPaW Managed Lands (%)
IBRA Bioregion*				
Esperance Plains	2,899,941	1,508,058	52	54
Shire*				
Shire of Ravensthorpe	982,196	605,707	61	31
Beard Vegetation Association in Bioregion*				
47	959,936	340,853	35	51

Methodology References:
 - Commonwealth of Australia, 2001
 - Government of Western Australia, 2013

GIS Databases:

- NLWRA, Current Extent of Native Vegetation
- Pre-European Vegetation

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Comments **Proposal is not likely to be at variance to this Principle**
 A minor non-perennial watercourse and minor drain are in close proximity to the northern portion of the area under application. The middle portion of the application area is in close proximity to areas that are subject to inundation.

There are no geomorphic or ANCA wetlands mapped within the vicinity of the project.

Given the distance from these water bodies, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Dataset:
 - Hydrography linear

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Comments **Proposal is not likely to be at variance to this Principle**
 The application area is mapped within soil type Cz1 which is described as gently undulating plain, or plateau at low elevation, with some lakes, swamps, and saline flats: chief soils are ironstone gravels with shallow leached sands, below which layers of boulder laterite or large amounts of ironstone gravel occur. (Northcote et al. 1960 - 1968).

Ground water salinity levels in the local area have been mapped as highly saline (Water and River Commission, 2000) at 7000-14000 milligrams per litre total dissolved solids.

The proposed clearing may result in short term wind erosion, however impacts are likely to be minimal and clearing is not likely to cause appreciable land degradation given the staged clearing of the proposed gravel extraction works and the progressive revegetation.

Given the above, the proposed clearing is not likely to be at variance to this principle.

Methodology References:
 - Northcote et al. (1960 - 1968)
 - Water and River Commission (2000)

GIS Databases:
 - Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments **Proposal may be at variance to this Principle**
 The closest conservation reserve, East Naemup Nature Reserve, is located 150 metres east of the application area (adjacent to Melaleuca Road reserve). Given the vegetation under application provides a fauna corridor connecting this reserve with other large remnants of vegetation, the proposed clearing may impact upon the environmental values of this reserve. However, given progressive revegetation will be undertaken following staged clearing as well as the proposed retention of a 10 metre vegetative buffer along the fence line of the reserve, impacts to the conservation values of this reserve are likely to be minimal.

In addition, the disturbance caused by the proposed clearing, will increase the risk of weeds and dieback being spread into this reserve. Weed and dieback management practices will assist in mitigating this risk.

Therefore the proposed clearing may be at variance to this principle.

Methodology GIS Databases:
 -DPaW Tenure

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Comments **Proposal is not likely to be at variance to this Principle**
 A minor non-perennial watercourse and minor drain are in close proximity to the northern portion of the area under application. The middle portion of the application area is in close proximity to areas that are subject to inundation.

Groundwater salinity mapped within the application area is between 7000 and 14000 milligrams per litre (highly saline). Given the long linear nature of the application area, it is not likely that the proposed clearing will lead to a perceptible rise in the water table or an increase in groundwater salinity levels.

Given the above the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Databases:
- Hydrology, linear
- Salinity Statewide

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Comments Proposal is not likely to be at variance to this Principle

The removal of remnant vegetation is not expected to contribute to flooding given the long and linear nature of the proposed clearing.

Therefore the clearing as proposed is not likely to be at variance to this principle.

Methodology GIS Datasets:
- Hydrography linear

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The application is to clear 14.89 hectares of native vegetation for the purpose of gravel extraction. The applicant has advised the proposed clearing will be undertaken in staged increments with 3 hectares being cleared in the first year at the southern end of the northern portion of the application area, and then 2 hectares each year after.

The proposed clearing occurs within the Kondinin-Ravensthorpe Groundwater Area under the Rights in Water and Irrigation Act 1914. The applicant has advised that the gravel extraction works are very shallow and will not impact upon groundwater resources, therefore a licence to take groundwater is not required from the Department of Water. The Department of Water (DoW) has advised that the proposed clearing is not expected to have a significant impact upon the groundwater resource and therefore they have no objections to the proposed clearing (DoW, 2014).

There are no Aboriginal Sites of Significance mapped within the application area.

The application area is mapped as 'General Agriculture' under the Town Planning Scheme.

No public submissions were received in relation to this application.

Methodology References:
-DoW (2014)

GIS Databases
- Aboriginal Sites of Significance
- Town Planning Scheme Zones

4. References

- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DEC (2012) Priority Ecological Communities for Western Australia Version 18. Species and Communities Branch. Department of Environment and Conservation, Perth, Western Australia.
- DEC (2012a) Western Brush Wallaby (*Macropus irma*). Department of Environment and Conservation, Perth, Western Australia.
- Department of the Environment (2014) Proteaceae Dominated Kwongan Shrubland: a nationally-protected ecological community. Western Australia.
- DoW (2014) Advice for Clearing Permit Application CPS 6193/1. Department of Water, Western Australia. DER Ref: A794377
- Government of Western Australia (2013) 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.
- Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Waters and Rivers Commission (2000). Wetland vegetation. Waters and Rivers Commission, Perth.